

CLAIMS:

1. An oat feed for equines comprising oats and an oat-balancing feed supplement, in which the feed supplement comprises a mix of components including lysine, iodine, copper, magnesium, zinc and calcium.

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2. A feed as claimed in Claim 1, in which the quantity of lysine present in the feed supplement fed to the animal per day ranges between 3.00g and 18.00g according to the age of the animal.

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3. A feed as claimed in Claim 1 or Claim 2, in which the mix of components in the feed supplement are present in the following ranges relative to 1g of lysine.

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| Iodine | $5.3 \times 10^{-4} - 7.9 \times 10^{-4} \text{g}$ |
| Copper | $5.3 \times 10^{-3} - 7.9 \times 10^{-3} \text{g}$ |
| Magnesium | $2.1 \times 10^{-1} - 3.2 \times 10^{-1} \text{g}$ |
| Zinc | $1.6 \times 10^{-2} - 2.4 \times 10^{-2} \text{g}$ |
| Calcium | $5.3 \times 10^{-1} - 8.0 \times 10^{-1} \text{g}$ |

4. A feed as claimed in any one of the preceding claims, in which the components of the mix in the feed supplement are present in the following optimal ratios calculated relative to 1g lysine:-

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| Iodine | $6.6 \times 10^{-4} \text{g}$ |
| Copper | $6.6 \times 10^{-3} \text{g}$ |
| Magnesium | $2.6 \times 10^{-1} \text{g}$ |
| Zinc | $2.0 \times 10^{-2} \text{g}$ |
| Calcium | $6.6 \times 10^{-1} \text{g}$ |

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5. A feed as claimed in any one of the preceding claims, in which the feed supplement further includes one or more of the following substances:

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| Vitamin A | Vitamin B ₁₂ |
| Vitamin D | Biotin |
| Vitamin E | Vitamin C |

23

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| 5 | Vitamin K | Cobalt |
| | Folic Acid | Selenium |
| | Nicotinic Acid | Methionine |
| | Pantothenic Acid | Threonine |
| | Thiamine | Choline |
| | Riboflavin | Iron |
| | Pyridoxine | Manganese |

6. A feed as claimed in any one of the preceding claims, in which the or each substance is present in the following ratio ranges relative to 1g lysine

| | Optimal Ratio Range |
|------------------|---|
| Vitamin A | $2.7 \times 10^3 - 3.9 \times 10^3 \text{ IU/g}$ |
| Vitamin D | $2.7 \times 10^2 - 3.9 \times 10^2 \text{ IU/g}$ |
| Vitamin E | $1.0 \times 10^2 - 1.6 \times 10^2 \text{ IU/g}$ |
| Vitamin K | $2.7 \times 10^{-4} - 3.9 \times 10^{-4} \text{ g}$ |
| Folic Acid | $0.8 \times 10^{-2} - 1.2 \times 10^{-2} \text{ g}$ |
| Nicotinic Acid | $5.3 \times 10^{-3} - 7.9 \times 10^{-3} \text{ g}$ |
| Pantothenic Acid | $2.1 \times 10^{-3} - 3.1 \times 10^{-3} \text{ g}$ |
| Thiamine | $2.1 \times 10^{-3} - 3.1 \times 10^{-3} \text{ g}$ |
| Riboflavin | $2.6 \times 10^{-3} - 3.8 \times 10^{-3} \text{ g}$ |
| Pyndoxine | $1.3 \times 10^{-3} - 1.9 \times 10^{-3} \text{ g}$ |
| Vitamin B12 | $1.0 \times 10^{-3} - 1.6 \times 10^{-3} \text{ g}$ |
| Biotin | $2.1 \times 10^{-4} - 3.1 \times 10^{-4} \text{ g}$ |
| Vitamin C | $2.1 \times 10^{-1} - 3.1 \times 10^{-1} \text{ g}$ |
| Cobalt | $2.1 \times 10^{-4} - 3.1 \times 10^{-2} \text{ g}$ |
| Selenium | $1.0 \times 10^{-4} - 1.6 \times 10^{-4} \text{ g}$ |
| Methionine | $2.6 \times 10^{-1} - 4.0 \times 10^{-1} \text{ g}$ |
| Threonine | $2.6 \times 10^{-1} - 4.0 \times 10^{-1} \text{ g}$ |
| Choline | $4.2 \times 10^{-2} - 6.4 \times 10^{-2} \text{ g}$ |
| Iron | $1.6 \times 10^{-2} - 2.4 \times 10^{-2} \text{ g}$ |
| Manganese | $1.6 \times 10^{-2} - 2.4 \times 10^{-2} \text{ g}$ |

7. A feed as claimed in any one of the preceding claims, in which the or each substance in the feed supplement is present in the following ratio calculated relative to 1g lysine:-

| | |
|----------------|--------------------------------|
| Vitamin A | $3.3 \times 10^3 \text{ IU/g}$ |
| Vitamin D | $3.3 \times 10^2 \text{ IU/g}$ |
| Vitamin E | $1.3 \times 10^2 \text{ IU/g}$ |
| Vitamin K | $3.3 \times 10^{-4} \text{ g}$ |
| Folic Acid | $1.0 \times 10^{-2} \text{ g}$ |
| Nicotinic Acid | $6.6 \times 10^{-3} \text{ g}$ |

24

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| Pantothenic Acid | $2.6 \times 10^{-3} \text{g}$ |
| Thiamine | $2.6 \times 10^{-3} \text{g}$ |
| Riboflavin | $3.2 \times 10^{-3} \text{g}$ |
| Pyndoxine | $1.6 \times 10^{-3} \text{g}$ |
| Vitamin B12 | $1.3 \times 10^{-3} \text{g}$ |
| Biotin | $2.6 \times 10^{-4} \text{g}$ |
| Vitamin C | $2.6 \times 10^{-1} \text{g}$ |
| Cobalt | $2.6 \times 10^{-4} \text{g}$ |
| Selenium | $1.3 \times 10^{-4} \text{g}$ |
| Methionine | $3.3 \times 10^{-1} \text{g}$ |
| Threonine | $3.3 \times 10^{-1} \text{g}$ |
| Choline | $5.3 \times 10^{-2} \text{g}$ |
| Iron | $4.0 \times 10^{-2} \text{g}$ |
| Manganese | $2.0 \times 10^{-2} \text{g}$ |

8. A feed as claimed in any one of the preceding claims, in which the gross weight of the feed supplement ranges between 5.4g and 8.0g relative to 1g of lysine.
9. A feed as claimed in any one of the preceding claims, in which a filling material is combined with the components of the feed supplement and any one of the further substances to bring the feed supplement to a gross-weight ranging between 5.45g and 8.0g relative to 1g of lysine.
10. A feed as claimed in any one of the preceding claims, in which the filling-material of the feed supplement is cereal wheat.
11. A feed as claimed in any one of the preceding claims, which is fed to a foal aged 3-6 month in an amount sufficient to provide the animal with $3.75 \pm 20\%$ lysine per day.
12. A feed as claimed in any of the claims 1 to 10, which is fed to a foal aged 6-12 months in an amount sufficient to provide the animal with $7.5g \pm 20\%$ lysine per day.
13. A feed as claimed in any one of the Claims 1 to 10, which is fed to a yearling aged 12-18 months in an amount sufficient to provide the animal with $11.25g \pm 20\%$ lysine per day.

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14. A feed as claimed in any one of Claims 1 to 10, which is fed to an adult aged 18+ months in an amount sufficient to provide the animal with $15\text{g} \pm 20\%$ lysine per day.